



UNITED STATES DEPARTMENT OF COMMERCE
Patent and Trademark Office

Address: COMMISSIONER OF PATENTS AND TRADEMARKS
Washington, D.C. 20231

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
-----------------	-------------	----------------------	---------------------

09/403,338 10/19/99 HORIKI

S 2710/60471

EXAMINER

IM52/1030

COOPER & DUNHAM
1185 AVENUE OF THE AMERICAS
NEW YORK NY 10036

KRUER, K

ART UNIT

PAPER NUMBER

1773

DATE MAILED:

10/30/01

Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

Office Action Summary

Application No.
09/403,338

Applicant(s)
Horiki et al.

Examiner
Kevin Kruer

Art Unit
1773



-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on _____.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-13 is/are pending in the application.
- 4a) Of the above, claim(s) 9-13 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-8 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claims _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are objected to by the Examiner.
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119

- 13) ☒ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).
- a) ☒ All b) ☐ Some* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- *See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

Attachment(s)

- 15) ☒ Notice of References Cited (PTO-892) 18) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 16) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 19) ☐ Notice of Informal Patent Application (PTO-152)
- 17) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s). _____ 20) ☐ Other:

Art Unit: 1773

DETAILED ACTION

Election/Restriction

1. Restriction is required under 35 U.S.C. 121 and 372.

This application contains the following inventions or groups of inventions which are not so linked as to form a single general inventive concept under PCT Rule 13.1.

In accordance with 37 CFR 1.499, applicant is required, in response to this action, to elect a single invention to which the claims must be restricted.

Group I, claim(s) 1-8, drawn to a porous molded composition impregnated with a phenolic resin.

Group II, claim(s) 9-13, drawn to a method of making a porous molded composition impregnated with a phenolic resin.

2. The inventions listed as Groups I and II do not relate to a single general inventive concept under PCT Rule 13.1 because, under PCT Rule 13.2, they lack the same or corresponding special technical features for the following reasons: the special technical feature that both groups have in common is a porous molded material impregnated with a phenolic resin comprising a phenolic compound and an aldehyde and/or aldehyde donor that is at least partially sulfomethylated and/or sulfimethylated. Such materials are taught in JP06270329 (a.k.a. Yuka'329), JP07195870 (a.k.a. Yuka'870), JP08121092 (a.k.a. Yuka'192), and JP05204609 (a.k.a. Yuka'609).

3. During a telephone conversation with Donald Dowden on Wednesday, August 29, 2001 a provisional election was made with traverse to prosecute the invention of Group I, claims 1-8.

Affirmation of this election must be made by applicant in replying to this Office action. Claim

Art Unit: 1773

withdrawn from further consideration by the examiner, 37 CFR 1.142(b), as being drawn to a non-elected invention.

4. Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a petition under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(i).

Oath/Declaration

5. Receipt is acknowledged of papers filed under 35 U.S.C. 119 (a)-(d) based on an application filed at the WPO on February 19, 1999. Applicant has not complied with the requirements of 37 CFR 1.63(c), since the oath or declaration does not acknowledge the filing of the PCT application. A new oath or declaration is required in the body of which the present application should be identified by application number and filing date.

Specification

The first line of the specification must state that the current application is the national stage filing under 35 USC 371 of PCT International Application PCT/JP99/00765, filed, 19 February, 1999 which claims priority to Japanese patent application 10-56090, filed 20 February 20, 1998.

Claim Objections

6. Claim 2 is objected to under 37 CFR 1.75(c), as being of improper dependent form for failing to further limit the subject matter of a previous claim. Applicant is required to cancel the

Art Unit: 1773

claim(s), or amend the claim(s) to place the claim(s) in proper dependent form, or rewrite the claim(s) in independent form. Claim 2 states that the phenolic compound is at B-stage. However, claim 1 already claims that the phenolic compound is at B-stage.

7. Claim 4 is objected to under 37 CFR 1.75(c), as being of improper dependent form for failing to further limit the subject matter of a previous claim. Applicant is required to cancel the claim(s), or amend the claim(s) to place the claim(s) in proper dependent form, or rewrite the claim(s) in independent form. Claim 4 states that the condensation polymer is partially or wholly sulfomethylated and/or sulfimethylated. However, claim 1 already states that the condensation polymer is partially or wholly sulfomethylated and/or sulfimethylated.

Claim Rejections - 35 USC § 102

8. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

9. Claims 1-6 are rejected under 35 U.S.C. 102(b) as being anticipated by JP06270329 (a.k.a. Yuka'329). Yuka'329 teaches a fibrous material impregnated with a sulfomethylated compound of a condensation polymer. The condensation polymer comprises a phenol and aldehyde and/or aldehyde donor (abstract). The phenol aldehyde resin is then cured with an amine compound (abstract).

10. Claims 1-6 are rejected under 35 U.S.C. 102(b) as being anticipated by JP07195870 (a.k.a. Yuka'870). Yuka'870 teaches a sulfomethylated condensation polymer. The

Art Unit: 1773

condensation polymer comprises a phenol and aldehyde and/or aldehyde donor(abstract). The phenol aldehyde resin is then cured with an amine compound (abstract). The resin may be used as a binder in molding fibers, wood chips, and nonwoven fabrics, or as an impregnate or adhesive (page 1 of translation).

11. Claims 1-6 are rejected under 35 U.S.C. 102(b) as being anticipated by JP08121092 (a.k.a. Yuka'192). Yuka'192 teaches a sulfomethylated condensation polymer. The condensation polymer comprises a phenol and aldehyde and/or aldehyde donor(abstract). The phenol aldehyde resin is then cured with an amine compound (abstract). The resin may be used as a binder in molding fibers, wood chips, and nonwoven fabrics, or as an impregnate or adhesive (page 1 of translation).

12. Claims 1-6 are rejected under 35 U.S.C. 102(b) as being anticipated by JP05204609 (a.k.a. Yuka'609). Yuka'609 teaches a sulfomethylated condensation polymer. The condensation polymer comprises a phenol and aldehyde and/or aldehyde donor(abstract). The phenol aldehyde resin is then cured with an amine compound (abstract). The resin may be used as a binder in molding fibers (page 1 of translation).

Claim Rejections - 35 USC § 103

13. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Art Unit: 1773

14. Claims 1-8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Franz et al. (US 3,922,459) in view of JP06270329 (a.k.a. Yuka'329), JP07195870 (a.k.a. Yuka'870), JP08121092 (a.k.a. Yuka'192), or JP05204609 (a.k.a. Yuka'609). Franz teaches a web of fibers impregnated (abstract) with a phenol formaldehyde resin (col 8, line 51). A metal foil may be glued to one or both sides of the impregnated fibers (col 8, lines 32-36).

Franz does not teach that the fibers should be impregnated with the claimed sulfomethylated or sulfimethylated phenolic resin. However, Yuka'329, Yuka'870, Yuka'192, and Yuka'609 each individually teach sulfomethylated condensation polymers. The condensation polymer comprises a phenol and aldehyde and/or aldehyde donor(abstract). The phenol aldehyde resin is then cured with an amine compound (abstract). The resin may be used as a binder in molding fibers (page 1 of translation). Such resins have better pot life and better water solubility than phenol formaldehyde resins. Therefore, it would have been obvious to utilize the sulfomethylated phenolic condensation polymers taught in Yuka'329, Yuka'870, Yuka'192, and Yuka'609 in place of the phenolic formaldehyde resin taught in Franz because such sulfomethylated resins have better pot life and water solubility-thus making processing easier.

15. Claims 1-8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Le Blanc (US 3,619,342) in view of JP06270329 (aka Yuka'329), JP07195870 (a.k.a. Yuka'870), JP08121092 (aka Yuka'192), or JP05204609 (aka Yuka'609). LeBlanc teaches a corrugated fiberboard which resists deterioration in strength when in the presence of water. The board comprises liner members bonded to either side of a corrugate medium which has been treated with phenol

Art Unit: 1773

aldehyde resole resin (abstract). The phenol aldehyde resole should have a water solubility such that an aqueous solution comprising 55wt% resin solids can be prepared(col 2, line 75).

LeBlanc does not teach that the medium should be impregnated with the claimed sulfomethylated or sulfimethylated phenolic resin. However, Yuka'329, Yuka'870, Yuka'192, and Yuka'609 each individually teach sulfomethylated condensation polymers. The condensation polymer comprises a phenol and aldehyde and/or aldehyde donor(abstract). The phenol aldehyde resin is then cured with an amine compound (abstract). The resin may be used as a binder in molding fibers (page 1 of translation). Such resins are have better pot life and better water solubility than phenol formaldehyde resins. Therefore, it would have been obvious to utilize the sulfomethylated phenolic condensation polymers taught in Yuka'329, Yuka'870, Yuka'192, and Yuka'609 in place of the phenolic formaldehyde resin taught in LeBlanc because such sulfomethylated resins have better water solubility, thus making it easy to prepare an aqueous solution comprising 55wt% resin solids.

Conclusion

16. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kevin R. Kruer whose telephone number is (703) 305-0025. The examiner can normally be reached on Monday-Friday from 7:00 a.m. to 4:00 p.m.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Blaine Copenheaver, can be reached on (703) 308-1261. The fax phone number for the organization where this application or proceeding is assigned is (703)305-5436.

Art Unit: 1773

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703)308-0661.

Kevin R. Kruer
Patent Examiner



BLAINE COPENHEAVER
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 1700